

## OHNSTON LABORATORIES, NC.

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March 1, 1965

Mr. Oran Nicks, Director Office of Lunar and Planetary Programs Code SL NASA Headquarters Washington, D. C. 20546

Subject: MONTHLY REPORT OF WILLIAM H. JOHNSTON LABORATORIES, INC. on NASA CONTRACT

NASw-987

INSTRUMENTATION FOR THE DETERMINATION OF THE LUNAR ATMOSPHERE

## Gentlemen:

We are submitting this letter summarizing the activities on the above contract for the period January 13, 1965, to February 12, 1965.

Testing of the vacuum system has been completed. With prolonged bake-out, a pressure of 10<sup>-9</sup> torr was achieved. The vacuum envelope for the coincidence mass spectrometer has been installed on the vacuum system. After repair of leaking welds and following extensive bake-out, a pressure slightly below 10<sup>-9</sup> torr was obtained in the CMS envelope, itself.

Some difficulty has been encountered in the installation of the electrical feedthrough into the high vacuum envelope. One of the two types of ceramic feedthroughs selected for this work was found to be unsatisfactory for silver soldering to

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the stainless steel vacuum envelope. These feedthroughs are being replaced by the other type which has been found satisfactory.

The coincidence mass spectrometer for operation in the ultra-high vacuum system is currently being assembled. It is expected that the assembly will be completed and the instrument installed in the vacuum envelope during the next period.

If you require any further information please do not hesitate to call upon us.

Sincerely yours,

Wm. H. JOHNSTON LABORATORIES, INC.

Wm. H. Johnston

Director